

ABSTRACT OF THE DISCLOSURE

A system for integrating broadcast and communication technologies is provided. The integration system performs a connection between an optical-network unit (ONU) and a user as well as a connection between an optical-line terminal (OLT) and the ONU using an optical line, and processes a broadcast signal on the basis of time division multiplexing (TDM) such that the quality of a broadcast service can be ensured. The OLT receives at least one digital-broadcast signal through an external broadcast network and at least one external data-communication signal, then electro-optically converts the received signals, combines the electro-optically converted signals to form an optical signal, and transmits the optical signal on the basis of optical wavelength-division multiplexing (WDM). The ONU separates the optical signal transmitted from the OLT into the broadcast signal and the communication signal, processes upstream information transmitted from a user, and optically transmits the broadcast signal and the communication signal selected on a user-by-user basis, on the basis of a time slot. A user gateway is further provided in the system to convert opto-electrically a time slot-based optical signal transmitted from the ONU, separate the time slot-based optical signal into individual signals, distribute the individual signals on a service-by-service basis, and optically transmit the upstream information from the user to the ONU.